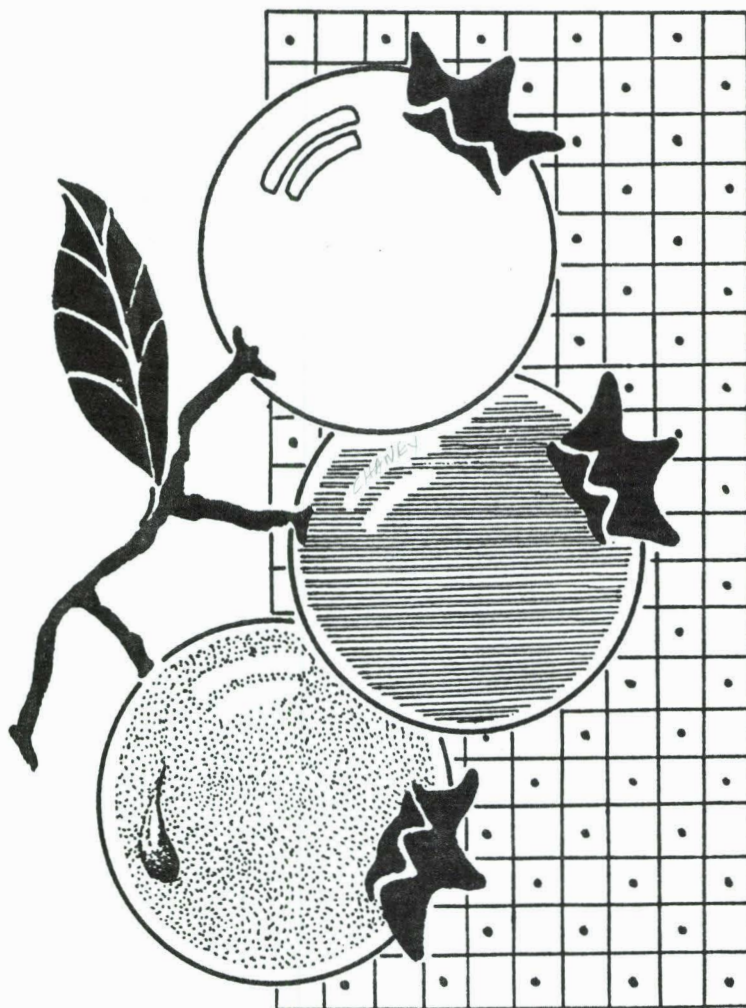

**MANAGING WILD BLUEBERRIES
FOR RECREATION
ON THE
CHIPPEWA NATIONAL FOREST**



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Eastern Region Forest Service
Chippewa National Forest

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CU-1990, 10 March 1990

THIS PAPER WAS PREPARED AS A STUDENT PROJECT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE PROFESSIONAL DEVELOPMENT FOR OUTDOOR RECREATION MANAGEMENT PROGRAM AT CLEMSON UNIVERSITY. IT IN NO WAY REFLECTS USDA FOREST SERVICE POLICY NOR ARE THE OPINIONS EXPRESSED THOSE OF ANYONE OTHER THAN THE AUTHOR.

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ABSTRACT

Local blueberry pickers were surveyed during the fall of 1989 to determine site preferences of pickers. Information was obtained from local researchers on types of sites suitable for management and methods of promoting productivity and propagation of wild blueberries. Survey results showed that people wanted the Chippewa National Forest to manage sites for wild blueberries. They preferred sites that were productive, accessible, and easy to find. Few pickers obtained information on location of sites or availability of berries from Forest Service personnel but indicated they would pick on the Forest if they knew where to pick. Most pickers were over the age of 55. Seventy-one percent of the pickers under the age of 55 took children with them when they picked. Reasons for picking include: finding berries, gathering a natural food, and being outdoors.

OTHERS WHO MIGHT FIND THIS REPORT USEFUL:

Recreation Staff Officers and Planners, and District Recreation Managers.

KEY WORDS:

blueberry picking, dispersed recreation, site selection

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INTRODUCTION

Study Area

This study encompasses the area within and immediately surrounding the Chippewa National Forest. Located in north central Minnesota, the Forest lies approximately 220 miles northwest of Minneapolis and 150 miles west of Duluth (figure 1). Excellent fishing, numerous lakes, and scenic beauty draw many tourists to the Forest's extensive system of campgrounds and resorts. Tourism and wood products reign as the area's main industries.



Figure 1. Chippewa National Forest

Blueberry gathering in northern Minnesota dates back to earlier times when American Indians gathered berries for subsistence. Today, wild blueberries are picked both commercially and recreationally. A survey of northern Minnesota resorts showed that 29 percent of their visitors picked wild berries and felt that this added greatly to their experience (Shubat, 1983). The Leech Lake Indian Reservation recently started a company (Ojibwe Foods) which buys wild berries, makes them into natural food products, and markets them throughout the state. For the past several years, the Superior National Forest in northeastern Minnesota has been managing wild blueberry sites. A large increase in the number of pickers was observed after one Ranger District notified several area newspapers about the availability of berries and location of good sites.

The *Chippewa National Forest Land and Resource Management Plan* (Forest Plan) states "The Forest will develop and manage several sites across the Forest as blueberry picking areas" (Chippewa National Forest, 1986). Periodically, the Chippewa burns approximately 200 acres of blueberry habitat to encourage new and more productive growth of native blueberries. These sites fall into the "road-ed natural" class of the Recreation Opportunity Spectrum (ROS). Criteria for the selection of sites has been the availability of existing plants, accessibility of the site, and historical picking use. Pickers site preference has never been determined. Information regarding the location of berry sites has been low-key, although some Ranger Districts have maps available at their offices. Word-of-mouth has been the most common method of transferring information regarding location, ripening, and availability of blueberries.

Purpose of Study

The purpose of this study is to:

- Determine if people want to pick in managed sites;
- Identify site characteristics preferable to pickers;
- Identify reasons why people pick; and
- Examine different practices to determine how best to manage a wild blueberry site while keeping it in a natural setting.

LITERATURE REVIEW

Characteristics of Lowbush Blueberries

Two primary species of wild blueberries which grow in Minnesota are the sweet lowbush (*Vaccinium angustifolium*) and the sour top (*V. myrtilloides*). While the sweet lowbush is preferred for eating, both species are quite good in baked products (Shubat, Nevers, 1987).

Lowbush blueberry plants grow from seed and from underground rhizomes. New parent plants are started from seed, usually by birds or other mammals. As the parent plant begins to age (3-6 years), it becomes branchy and produces smaller and fewer berries. An aboveground disturbance which prunes the parent plant encourages the spread of underground rhizomes. As the rhizomes spread, they develop new roots and periodically send new stems above ground. These new stems produce larger and more numerous berries than the original parent plant (Black, 1963). This extensive rhizome system enables the plant to endure fire and other disturbances while spreading vegetatively across large areas (Shubat, 1983). Each plant, with its extensive system of rhizomes, forms its own unique clone. This clone is usually of a different variety than the clone of an adjacent plant (DeGomez, 1985).

Minnesota blueberries grow best on open acidic sites (blueberries are unproductive in heavy shade) (Shubat, 1983). They are also found in pine stands where the crown closure allows for ample sunlight to reach the ground. The sweet lowbush berry is found primarily on sandy, draughty soils; while the sour top berry is found on wetter soils. However, both can be found interspersed on the same site (Hoecker, 1989).

Blueberry plants produce large quantities of sweet berries two years after a disturbance, and will remain productive for the next four to six years. The first year is devoted primarily to the development of new stems and leaves. On good sites, where abundant berry plants already exist, up to 4000 pounds of berries can be produced per acre (DeGomez, 1985).

Management Methods

Sites best suited for berry management are on units of land where blueberries are a naturally dominant component of the plant community (Shadis, 1989).

Common methods for managing wild blueberries include: thermal and mechanical pruning, fertilizing, mulching, and the removal of competition. These practices have been successful in maintaining high yields of commercial native blueberries in Maine and Eastern Canada (Shubat, 1983).

In analyzing wild blueberry research plots on the Superior National Forest in northern Minnesota, Shubat and Nevers (1987) found that:

1. Burning increased blueberry stem density by fifty percent;
2. Nitrogen fertilizer tended to increase blueberry stem length;
3. Herbicide controlled competition from grasses and other weeds, but did not increase the number or size of blueberry plants.

Thermal Pruning

Periodic burning of blueberries encourages new growth from underground stems. New stems are more numerous and productive than older stems (Black, 1963). Pruning every two years also promotes a high percentage of viable flower buds (DeGomez, 1985). Fruit is not produced until the second and third years

following a burn. Although a two-year cycle is recommended in Maine, Shubat (1983) suggests that four- to five-year cycles may be better in Minnesota. Burning can be done either in late fall after the first killing frost, or in early spring before new growth resumes (DeGomez, 1988). Late fall burning is preferred as the time available for burning is greater than in the spring. Fall burning also allows new plants to initiate growth first thing in the spring (Wildung, 1989). Timing of a spring burn is critical. Burning too early will create a sporadic burn, leaving much of the area unburned. Burning too late may create a burn so hot it can destroy the organic surface layer of the soil. Destroying the organic layer leaves the rhizomes exposed to future burning, drought, and extreme cold (Trevett, 1956). Burning too early in the fall or too late in the spring after new growth has resumed has detrimental effects on new stem growth, length of stems, and the total number of flower buds produced (DeGomez, 1988).

Pruning with fire will help reduce competition from invading plants, as well as reduce opportunities for infestation from insects and disease (DeGomez, 1988).

Social Benefits

Knowledge of social and psychological benefits attributed to picking wild blueberries is important to recreation planners in selecting and managing blueberry sites. For example, if seclusion from other pickers provides an important psychological benefit to many blueberry gatherers, then advertising sites may not be an appropriate type of management. Or, if picking in natural "unmanaged" areas is important to pickers, then prescribed burning or using herbicides to improve the productivity of a site may reduce the recreational benefits people wish to obtain from gathering a natural food.

Driver and Harris (1981) define a benefit as anything which "improves the condition of an individual or of society, or prevents a worse condition from occurring."

They then classified the following five types of recreational benefits:

1. Perceived Psychological - Improved states of mental well-being which recreationists perceive they derive from participating in recreation activities.
2. Behavioral Change - Improvements in behavior, or increased effectiveness in functioning or performance, realized from engaging in a recreation activity.
3. Preservation - Protection of resources from more exploitative uses, creating preservation benefits for current and future users.
4. Spin-off - More productive, healthier, and otherwise better citizens.
5. Economic - Improvements in the economic conditions of individuals or society caused by those programs.

People engage in a recreational activity in order to solve a perceived problem that could not be solved in a non-recreational activity (Driver, 1976).

Driver and Brown (1975) address the theory that, for effective planning and management of the Recreation Opportunity Spectrum (ROS), planners must realize specific psychological outcomes that are desired and expected from particular activities. These outcomes can then be planned for in areas which display particular resources and settings.

Driver and Brown also suggest that most recreation resource allocations are based on intuitive "understandings" rather than objective and systematic knowledge of social benefits received from engaging in an outdoor recreational opportunity. Lucas (1964) and Clark (1971) have shown that "managers intuition and users preferences do not always agree."

A lack of information on available recreational opportunities can restrict use (Stankey, 19--). As an example, Lime (1971) found that "one-third of the campers in the Superior National Forest knew of only three or fewer campgrounds, although the area had thirty-six."

Stankey also suggests that it can be misleading to judge recreational demand on existing use. Opportunities that are available at little cost will often be used. This use should not lead us to assume that visitor needs have been satisfied. "Greater attention should be devoted to defining the nature of what we are producing and the basis for its demand" (Stankey, 19--). One of the criteria for selecting sites on the Chippewa National Forest has been past use of a site by blueberry pickers.

Responding to an Aging Population

It is projected that by the year 1995, the number of people between the ages of 45-55 will increase by 47 percent. Within 30 years from now, people over the age of 65 will increase from the present 12 percent to over 24 percent.

A study conducted by the National Park Service found that people over the age of 65 frequently cited "enjoyment of nature" as their primary reason for pursuing outdoor recreational activities. Bruce Hronek with the U.S. Forest Service found that older citizens enjoy National Forests for gathering activities. Berry picking, mushrooming, collecting pine cones, firewood gathering, and similar activities are heavily engaged in by our older citizens. These types of activities can either be maintained or enhanced by good forest management practices. Hronek also emphasized that older citizens need to be informed when products are ready to be gathered, and where they can be found (Hronek, 1989).

Recreational Picking of Wild Blueberries in Northern Minnesota

In 1971, it was estimated that 20 percent of the tourists visiting northern Minnesota in berry season picked wild blueberries (Peterson, 1971).

Tourists visiting northern Minnesota resorts were surveyed by a University of Minnesota researcher in 1980 and 1981. Two questions asked were "Do you pick wild berries?" and "Did this activity add to your recreational experience?" A little over 29 percent of the visitors said that they picked wild berries and agreed that this added greatly to their experience. A blueberry festival, held every year in Ely, Minnesota, features blueberry picking contests, blueberry pie eating contests and several other activities centered around wild blueberries. Participants vary between local residents and tourists. Strong interest in this type of event suggests that "management of lowbush blueberry stands could benefit residents and be an economic asset to the tourist industry in northern Minnesota" (Shubat, 1983).

In 1981 and 1982, Shubat interviewed 62 people who were picking wild blueberries near Ely, Minnesota. Over half of them were local residents. Most of those polled highly valued the experience. On the average they picked approximately two quarts of berries. This would indicate that the activity was purely recreational. Shubat estimated that the cost of picking one quart of berries would be between \$4.70 and \$5.53. However, people said that they would not pay to pick. Several of the people surveyed would not want to see lands managed for berries if the management was to be done by the federal government. They also wanted the berry patches to look wild.

In a 1986 survey, Shubat revised her estimate of the average cost to a recreational picker for a quart of wild blueberries. Using the results from a new survey of 133 blueberry pickers and the following formula, Shubat estimated that each party of pickers spent \$6.00 per quart harvested and drove an average of 29 miles to the site.

$$\text{\$ spent/quart of blueberries} = \frac{\text{mileage to the patch} \times \text{\$.21/mile}}{\text{quarts of blueberries}}$$

In a recreation and expenditure survey of Minnesota residents conducted by the Minnesota Department of Natural Resources, the question was asked "On how many recreational occasions do you pick wild food?" (includes berries, nuts, and mushrooms). Results from the Arrowhead region of Minnesota (Region 3) were: for all recreational occasions, 86.3 percent of the people who live in Region 3 picked wild food in Region 3. For people coming from all other parts of the state, 20.8 percent picked wild food in the Arrowhead region. The survey found for the whole population of the state (4,000,000), all people collected wild food on one fourth of their recreational occasions (Shubat, Nevers, 1987).

METHODS

Forest Service employees identified the names of 131 local non-Forest Service people who historically have picked wild blueberries within the study area. A survey was then mailed to these people. Information drawn from the survey was used to determine what kinds of sites people prefer to pick in, how people decide where to pick, why they pick, and if they would pick in managed sites. In addition, 46 Forest Service employees were surveyed. Employee responses, analyzed separately from public responses, were later compared.

Through a literature search and interviews with two local researchers, information was gathered on the types of sites suitable for berry production and methods for managing these sites.

A literature search (FS INFO) was used to identify information related to the recreational aspects of berry picking. However, no information specifically relating to the gathering of natural foods could be found.

Information was obtained from the Superior National Forest on management of their sites and their method of notifying pickers of site locations and the availability of berries.

RESULTS AND DISCUSSION

A total of 92 public responses was received, representing approximately a 70 percent rate of return. The following discussion is based on the information obtained from these public surveys. Forest Service survey results are discussed and compared to public responses at the end of this chapter.

Management of Blueberries on Federal Land

Eighty-six percent of the respondents said that they would like to see federal lands (Chippewa National Forest) managed for wild blueberries if the sites remained in a natural setting. Ten percent said they wouldn't want to see federal lands managed while 4 percent said they didn't know. These results differ somewhat from Debbie Shubat's survey information from the Superior National Forest where 36 percent of the people interviewed said they would like to see public lands intentionally managed for blueberries. Another 37 percent said, "Yes if the areas looked wild or woodsy, and if we wouldn't have to pay to pick." Twenty-seven percent of the people she surveyed did not want to see public lands managed for blueberries.

Informing the Public on Location of Sites

Forty-nine percent of the respondents indicated they had picked blueberries on the Chippewa National Forest within the last three years, while 51 percent indicated they had not. There is some question as to whether the respondents actually knew if they were picking on the National Forest considering its dispersed pattern of land ownership. Seventy-six percent of the respondents said that they would pick on the Chippewa National Forest if they knew of specific locations. Of those people who said that they had picked on the Chippewa, 24 percent

picked in areas they were familiar with; 21 percent found areas by word of mouth; 17 percent found areas by chance; and only 7 percent had located areas through contact with Forest Service employees. Seventy-seven percent of the respondents did not feel it was important to them to pick in areas they had discovered on their own.

These responses indicate that more people would pick on the Chippewa if they knew of specific locations to pick in. It also indicates that the Forest Service could do a better job providing information to local pickers. As stated earlier by Stankey, a lack of information on available recreational opportunities can restrict use. Providing this information could increase the use of the National Forest by berry pickers.

Time Spent Picking and Amount Picked

On the average, people spent three hours picking per trip and picked two and a half times per year. They picked an average of thirteen quarts per season, or five quarts per trip.

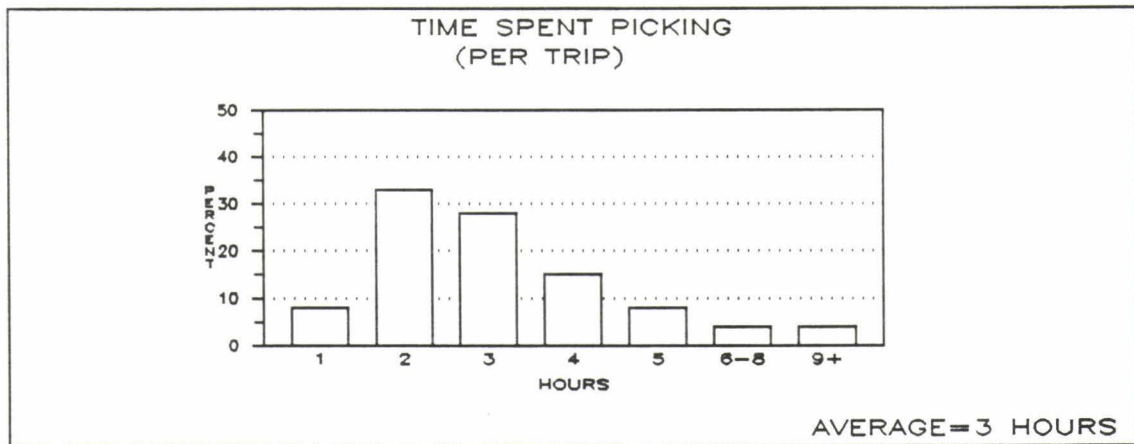


Figure 2. Time Spent Picking Per Trip

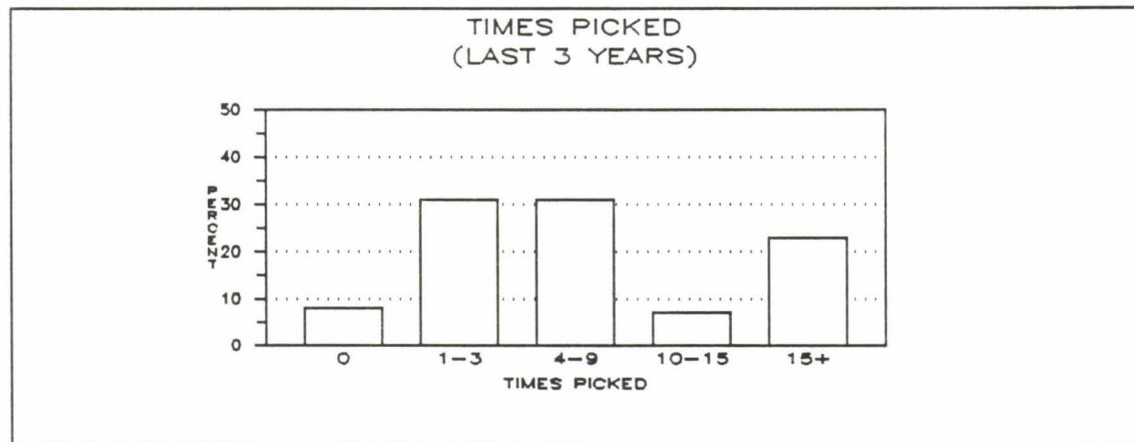


Figure 3. Times Went Picking Per Season

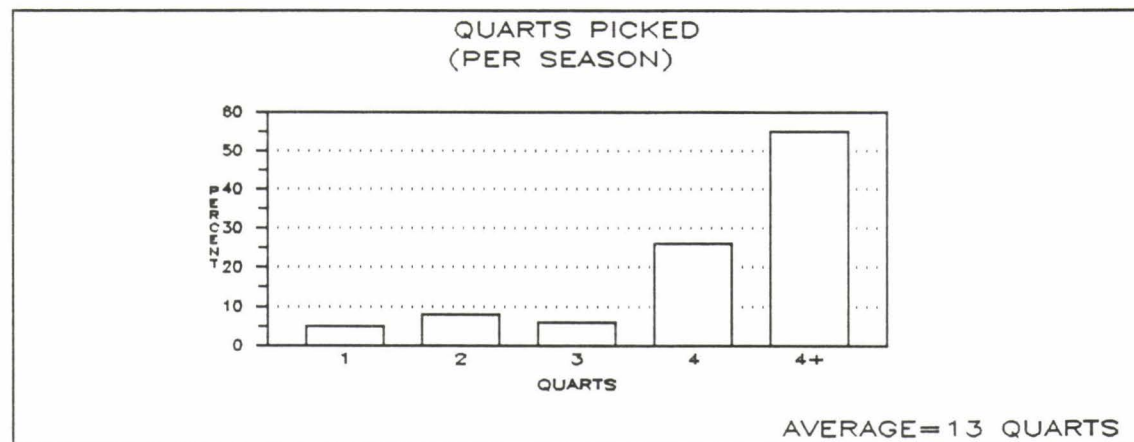


Figure 4. Number of Quarts Picked Per Season

Five quarts per trip is somewhat higher than Shubat's survey estimate of two quarts per trip on the Superior National Forest. Using Shubat's formula of

$$\begin{array}{r} \$ \text{ spent/quart of blueberries} = \text{mileage to the patch} \times \$0.21/\text{mile} \\ \hline \text{quarts of blueberries} \end{array}$$

and using 29 miles as a distance travelled to a site, the cost of a quart of blueberries would decrease from Shubat's estimate of \$6.00 per quart to \$1.22 per quart. (This estimate was based on the farthest average number of miles a person would travel to reach a site. Shubat's 29-mile average was based on an average of the respondents' actual mileage traveled to reach a site.)

Site Preferences

Thirty-six percent of the respondents said that the farthest they would travel to reach a site would be between 11-30 miles; while 24 percent said between 0-10 miles, 22 percent between 31-60 miles, and 18 percent over 60 miles. Fifty-five percent of the respondents were willing to walk between one-half and one mile to reach a good berry site, 23 percent would walk between 2-3 miles, and 22 percent would not walk over one-half mile. This response would indicate that sites should be located less than 30 miles from a town or resort area and it should not be necessary to walk over a half mile into the site.

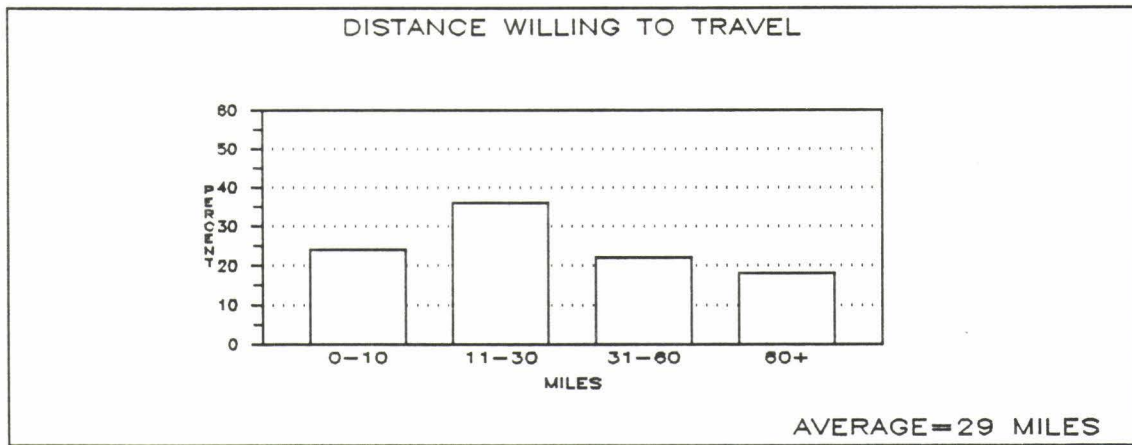


Figure 5. Distance Willing To Travel

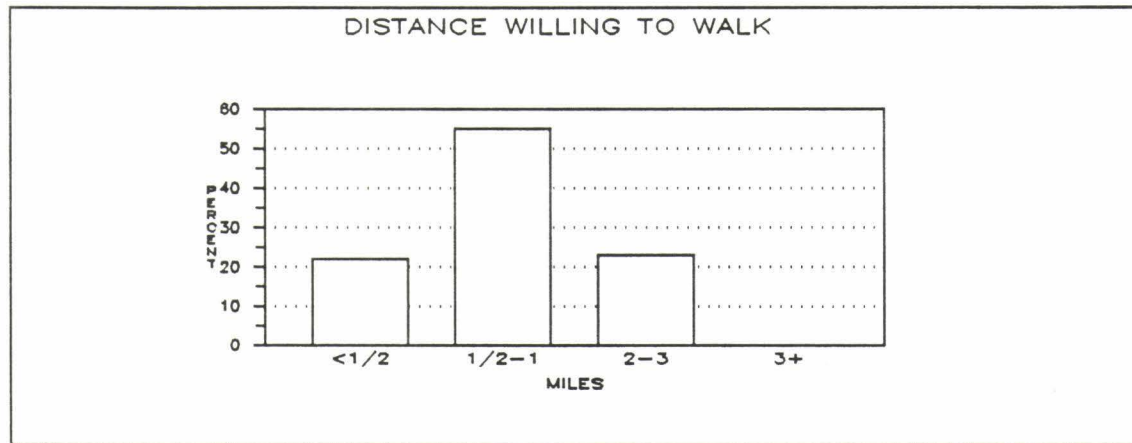


Figure 6. Distance Willing To Walk

Fifty-seven percent of the pickers didn't care if a site was open or wooded, 23 percent preferred wooded sites, and 20 percent preferred open sites. Research indicates that berries grow best in open sites, although they can do well in fairly open wooded sites. The Superior National Forest found that a mix of sites provided a better assurance of annual berry crops. On good growing years, open sites produced a higher yield of berries than wooded sites. On years when berry plants were subjected to either frost or draught, wooded areas protected plants better than open areas and therefore produced better crops (Hoecker, 1989). Some local pickers felt that open areas allowed the sun to burn off a lot

of the crop and that the berries were smaller. Research information specific to the Chippewa is not available; and since the Chippewa is located on the edge of the blueberry range, research relating to other Lake States locations and the North-east may not be accurate.

When asked to rank the types of areas they liked to pick in, the majority of pickers wanted areas with a lot of berries (35 points). Next, they wanted areas that were easy to find (19 points), areas next to a good road (15 points), and areas people had told them about (15 points). These responses would indicate that finding a lot of berries, ease in locating sites, and accessibility are important site attributes.

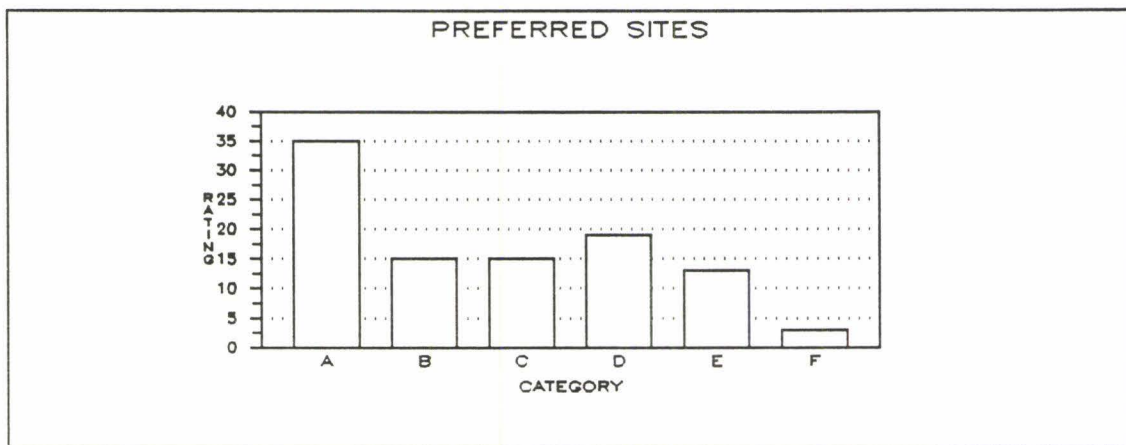


Figure 7. Preferred Sites

- A = Areas with a lot of berries
- B = Areas that people had told me were good to pick in
- C = Areas next to a good road
- D = Areas that are easy to find
- E = Areas that are off the beaten track
- F = Other

Reasons for Picking

The majority of respondents picked wild blueberries for a food/baking source (25 points) and to be able to gather a natural food (15 points).

Once again, most people felt that finding blueberries was their primary reason for picking. However, we know from Shubat's research that it is actually cheaper to buy wild blueberries than it is to pick them. This would indicate that people must pick for other reasons as well. Three other popular reasons for picking wild blueberries were to be outdoors (13 points), to be in a quiet and peaceful setting (11 points), and to feel a sense of accomplishment in finding berries (10 points).

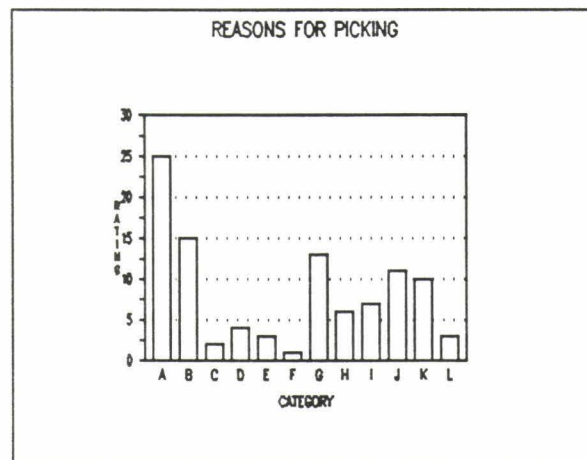


Figure 8. Reasons For Picking

- A = For a food/baking supply
- B = To be able to gather a natural food
- C = To take myself back to a time when people gathered berries for subsistence
- D = To be with my family
- E = To be with my friends
- F = To be by myself
- G = As an excuse to be outdoors
- H = Exercise
- I = Tradition
- J = To be in a quiet and peaceful setting
- K = To feel a sense of accomplishment in finding berries
- L = Other

These responses would indicate that several secondary benefits were derived from picking wild blueberries. These benefits would fall into Driver and Harris's (1981) five categories of recreational benefits; improved states of mental well-being, improvements in behavior, protection of resources, more productive and healthier citizens, and improvements in economic conditions of individuals and society.

These secondary benefits derived from picking blueberries may also help to solve perceived problems of many pickers. Since it is cheaper and easier to buy wild blueberries, the need to be outdoors in a quiet and peaceful setting removed from the congestion of everyday life, may actually be as important as finding berries. Picking berries may be one way to satisfy this need while still accomplishing a goal-oriented task, finding a natural food.

The need to be outdoors in a quiet and peaceful setting, in a location that is easy to find and within one half mile of a road, indicates that the location of sites would best occur within the ROS category of roaded natural where people can easily reach a site by car and still be in a natural setting.

Several people felt that it was important to be able to gather a natural food. Some people indicated that they did not want to pick in areas that had been treated with herbicides. Although several different methods of managing wild blueberries have been successfully used, those methods which detract from the berry's status of being a natural food should not be used. Prescribed burning is a successful method of improving the productivity of a berry site while still maintaining its natural character.

Profile of Pickers

Fifty-seven percent of the respondents are 55 or older. Nineteen percent are between the ages of 35 and 44, 13 percent between the ages of 45 and 54, and 11 percent between the ages of 25 and 34.

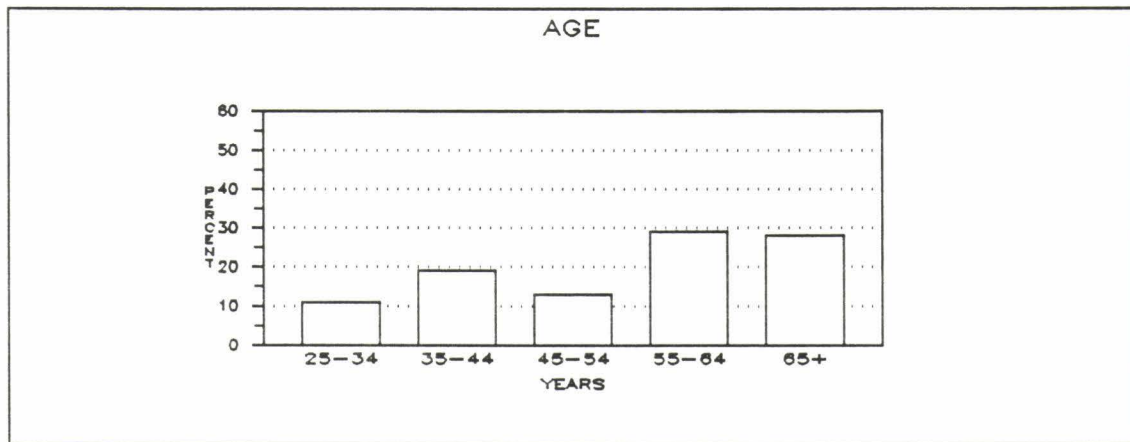


Figure 9. Age of Respondents

Since the choice of people surveyed was not random, there may be some question as to the validity of saying that the majority of blueberry pickers are 55 or older. However, these people have more free time in which to recreate, and blueberry-picking is an activity that is easily engaged in by all age groups. Bruce Hronek (1989) of the U.S. Forest Service found that gathering activities were heavily engaged in by older citizens and that these types of activities can either be maintained or enhanced by good forest management practices. Seventy-one percent of the respondents under the age of 55 brought children with them at least some of the time. Consideration of both older pickers and children should be a factor in locating future blueberry management areas.

Forty-four percent of the pickers are retired, while 9 percent are homemakers. The remaining 47 percent worked in a variety of jobs. Household size for 54 percent of the respondents is two. Fifteen percent lived in single households, while the remaining respondents lived in households of three to six.

Comparison Between Public and Forest Service Survey Responses

Driver and Brown (1975) suggest that most recreation resource allocations are based on "intuitive understandings," rather than objective and systematic knowledge of social benefits received from engaging in an outdoor recreational opportunity. Lucas (1964) and Clark, et al. (1971) have shown that "managers' intuition and users' preferences do not always agree."

This study is somewhat limited in its ability to assess "managers' intuition" with "users' preferences" in that Forest Service respondents were answering questions based on personal preferences, instead of what they perceived to be user preferences. However, it is very possible that there may be a link between personal preferences and perceived user preferences. Public and Forest Service responses corresponded on most of the questions. The main difference between the two sets of responses was in the types of areas where people liked to pick. The public felt it was important to pick in areas that were easy to find and next to a good road, while Forest Service pickers preferred to pick in areas that were off the beaten track. This last difference in response may be important in that if Forest Service managers chose areas based on "intuitive understandings," they would tend to manage sites in more remote locations which would differ from public preferences.

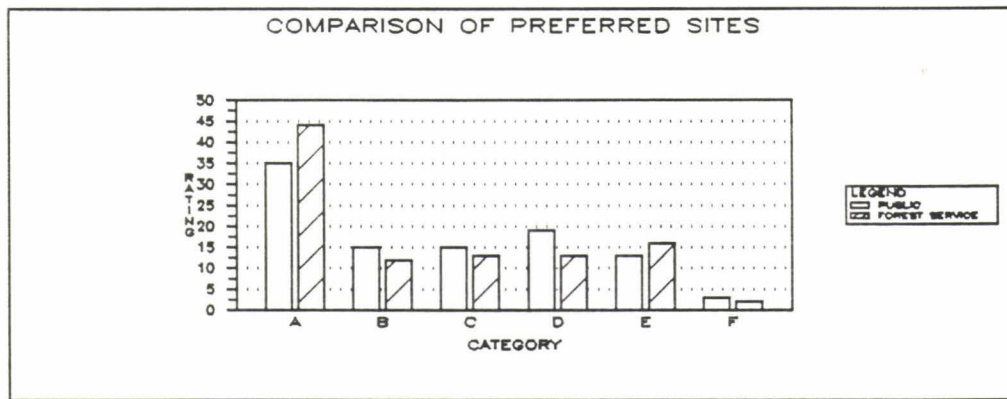


Figure 10. Comparison of Preferred Sites

- A = Areas with a lot of berries
- B = Areas that people had told me were good to pick in
- C = Areas next to a good road
- D = Areas that are easy to find
- E = Areas that are off the beaten track
- F = Other

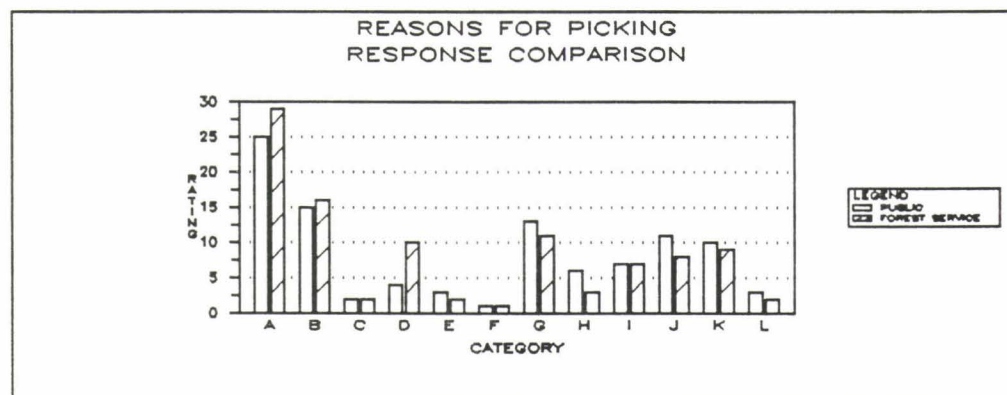


Figure 11. Comparison of Reasons for Picking

- A = For a food/baking supply
- B = To be able to gather a natural food
- C = To take myself back to a time when people gathered berries for subsistence
- D = To be with my family
- E = To be with my friends
- F = To be by myself
- G = As an excuse to be outdoors
- H = Exercise
- I = Tradition
- J = To be in a quiet and peaceful setting
- K = To feel a sense of accomplishment in finding berries
- L = Other

RECOMMENDATIONS

The following recommendations are based on responses from the public survey. Forest Service responses were not included in these recommendations.

1. **Manage sites for wild blueberries.**

Eighty-six percent of the people surveyed said that they would like to see federal lands (Chippewa National Forest) managed for wild blueberries if the sites remained in a natural setting. Along with this response, the majority of people picked wild blueberries for a food/baking source and felt the main attraction of a site was a lot of berries. These responses show that people want to find berries above anything else. Managing sites will increase the productivity of wild blueberries.

2. **Keep the management of berries as natural as possible.**

Second to finding berries and being outdoors, people picked wild blueberries because they considered them a natural food. Some people indicated that they did not want to pick berries that had been sprayed with herbicides. Research shows that burning is an effective treatment to use in promoting berry growth and viability. It is also considered to be a natural method of managing sites. Historically, wildfire has served as a natural promoter of wild blueberries in northern Minnesota. Burning every three to five years appears to be most effective.

3. **Make the sites accessible.**

The majority of respondents were either over the age of 55 or took small children with them when they picked. People were willing to drive up to 30 miles to reach a site, but did not want to walk much over one-half mile into it.

4. **Make the sites easy to find.**

Seventy-seven percent of the respondents did not feel it was important to pick in areas that they had discovered on their own. They felt it was more important that sites were easy to find. Brochures displaying clear maps of the sites should be developed. Signs could be posted next to managed sites. Ranger Districts and Supervisor's Office receptionists should be able to direct people to these sites and inform them when the berries are ripe. News releases seem to be an effective way of getting berry information out to the local public.

5. **Monitor sites for use.**

Managed sites need to be monitored for both berry production and for visitor use. Readily accessible sites may become crowded or over picked and therefore less desirable.

6. **Research.**

Local research on the management of wild blueberries is not available. Utilizing available expertise, plots should be established within managed areas to monitor success and to determine best management practices for the Chippewa.

In summary, this study has shown that picking wild blueberries is an important recreational activity on the Chippewa National Forest. Survey responses indicate that people would like to see the Forest manage sites for wild blueberries; that certain types of management, location of sites, and dissemination of berry information can improve recreational opportunities for pickers, and ultimately improve their experience.

WHAT NEXT?

Results of this paper will be presented to the Chippewa National Forest Supervisor and to recreation managers at the spring Forest recreation meeting. Recommendations will be made to:

1. Manage additional sites,
2. Choose sites which correlate to user preferences,
3. Develop a public information plan specific to each Ranger District,
4. Provide berry picking information to campground and resort users, and
5. Develop a system for estimating the amount of recreational visitor days spent on the Forest picking berries. This information, combined with the survey results, would enable the Forest to make a much more accurate estimate of the dollar value for berry picking used in the Timber Sale Program Information Reporting System.

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TOURISM CENTER

48 McNeal Hall
1985 Buford Avenue
Minnesota Extension Service
University of Minnesota
St. Paul, Minnesota 55108
(612) 624-4947

Dear Blueberry Picker:

As a part of a study for Clemson University and in cooperation with the University of Minnesota Extension Service, we are evaluating the possibility of managing areas in the Chippewa National Forest for the enhancement of native wild blueberries. By filling out the enclosed survey, you will help us determine the kinds of sites people prefer to pick in, why people pick blueberries, and if people would pick in managed sites.

Please take a few minutes to complete the survey and mail it back to us in the prepaid envelope by December 22, 1989.

Thank you for your time and interest.

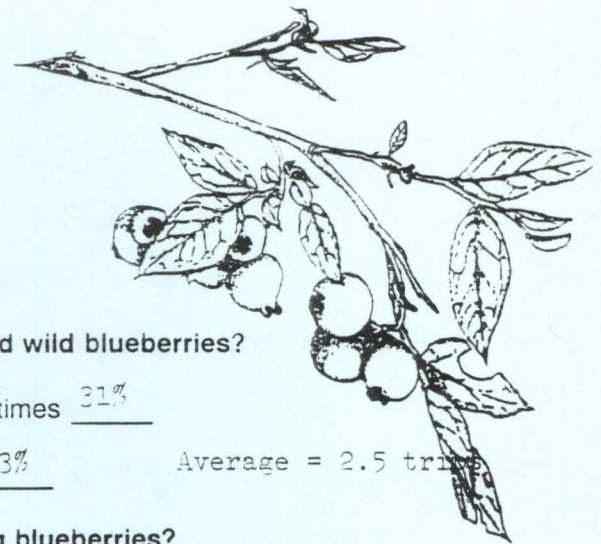
Sincerely,

LARRY SIMONSON
Extension Special Tourist Service
University of Minnesota

CONNIE CHANEY
Forest Planner
Chippewa National Forest

Enclosures

PUBLIC RESPONSES



1. Within the last THREE years, how many times have you picked wild blueberries?

0 times 3% 1-3 times 31% 4-9 times 31%
 10-15 times 7% 15+ times 23% Average = 2.5 times

2. On the average, how much time per trip do you spend picking blueberries?

1 hour 3% 2 hours 33% 3 hours 28% 4 hours 15%
 5 hours 3% 6-8 hours 4% 9+ hours 4% Average = 3 hours

3. On an average berry picking year, how many quarts of blueberries do you pick in ONE season?

1 quart 5% 2 quarts 8% 3 quarts 6% 4 quarts 26%
 4+ quarts 55% (estimate how many) Average = 13 quarts

4. Within the last THREE years, have you picked wild blueberries on the Chippewa National Forest?

Yes 49% No 51%

If yes, how did you decide where to pick? _____

5. If you knew of specific areas on the Chippewa National Forest where wild blueberries grew, would you try these areas?

Yes 76% Maybe 22% No 2%

6. What is the farthest you would travel to reach a blueberry site?

0-10 miles 24% 11-30 miles 36% 31-60 miles 22% 60+ miles 18%

7. How far would you walk to reach a good blueberry site?

22% Less than 1/2 mile 55% 1/2 to 1 mile from road
23% 2 to 3 miles from road 0% 3+ miles from road

8. Would you like to see public lands (i.e., Chippewa National Forest) intentionally managed for wild blueberries if the sites remained in a natural setting?

Yes 66% No 10% Don't Know 4%

9. Do you prefer to pick in an open area or in a wooded area?

Open 30% Wooded 23% Doesn't Matter 57%

10. Is it important to you to pick in areas that you have discovered on your own?

Yes 23%

No 77%

11. Do you bring children with you when you pick?

Yes 24%

No 44%

Sometimes 32%

If so, how many children do you bring in each age group?

0-3 years 14%

4-5 years 11%

6-10 years 46%

10+ years 29%

12. Why do you pick wild blueberries? (Rank from 1 to 5 your top reasons for picking.)

- 25 A. For a food/baking supply
- 15 B. To be able to gather a natural food
- 2 C. To take myself back to a time when people gathered berries for subsistence
- 4 D. To be with my family
- 3 E. To be with my friends
- 1 F. To be by myself
- 13 G. As an excuse to be outdoors
- 6 H. Exercise
- 7 I. Tradition
- 11 J. To be in a quiet and peaceful setting
- 10 K. To feel a sense of accomplishment in finding berries
- 3 L. Other _____

13. What kinds of areas do you like to pick in? (Rank from 1 to 5 the kinds of areas you like to go to.)

- 35 A. Areas with a lot of berries
- 15 B. Areas that people told me were good to pick in
- 15 C. Areas next to a good road
- 12 D. Areas that are easy to find
- 13 E. Areas that are off the beaten track
- 3 F. Other _____

The following questions are used for statistical purposes only.

14. Age _____

15. Occupation _____

16. Size of Household _____

Thank you for your help and time.

The Forest will provide access, either drive-in or carry-in, to lakes which have National Forest ownership; currently lack a public access; and have a demonstrated need for access, such as fishing or hunting.

Lakes larger than 150 acres will generally be developed for drive-in boat access. Lakes less than 150 acres will generally have carry-in access or no access. Inventoried and maintained accesses which exist on lakes smaller than 150 acres will be allowed to remain if causing no environmental damage, if the lake served is not highly suitable for carry-in type access and if it does not provide the user with a high degree of solitude. Those accesses where environmental damage is occurring will either be reconstructed or closed.

When developing new boat access facilities, the Forest will coordinate with the Minnesota DNR and other appropriate resource management agencies.

The Forest will construct or reconstruct seven boat access facilities between 1986 and 2000. These boat accesses are planned for Moccasin Lake, Big Dick Lake, Mississippi-Leech River confluence, South Pike Bay Campground, Trestle Landing (North Star Lake), Gilstad Lake, and West Winnie Campground (Lake Winnibigoshish). Proposals for additional accesses will be evaluated using the Lake Priority System (Appendix D) which has been developed for use on the Chippewa National Forest.

When developed recreation facilities are constructed or reconstructed, a portion of the common facilities (toilets, water, etc.) will be built in a manner to accommodate physically handicapped people.

Three canoe routes are currently maintained by the Forest Service -- Turtle River, Rice River and Boy River (Inguadona Canoe Route). The associated facilities along the route, such as undeveloped landings and dispersed camping sites, will continue to be maintained. New routes may be identified in any Management Area. The Minnesota Department of Natural Resources also has designated canoe routes that are partly within the Chippewa National Forest. Several other potential routes exist on the Forest and will be analyzed for possible future development. They are shown, along with the existing routes, in Figure IV-2.

The North Country Trail, a National Scenic Trail that will eventually link the Appalachian Trail in the east with the Lewis and Clark Trail in North Dakota, traverses the Forest and will continue to be maintained.

* [Regarding minor forest products, the Forest will develop and manage several sites across the Forest as blueberry picking areas. The development of facilities (including access) for other products such as maple syrup, boughs and wild rice will not be emphasized in the period 1986 to 1990.